

APPENDIX B: Supplemental Joint Claim Construction Worksheet¹

#	PATENT	TERM	AGREED PROPOSED CONSTRUCTION	PLAINTIFF'S PROPOSED CONSTRUCTION	DEFENDANT'S PROPOSED CONSTRUCTION	COURT'S CONSTRUCTION
1	'925	“□”		<p>The absolute value symbol “ ”</p> <p>This term is not indefinite.</p> <p>In response to Samsung's argument that multiple occurrences of a single character within a single patent claim constitutes five claim terms is blatantly inconsistent with its brand-new argument that the Court should construe nine preambles from five different patents as one claim term.</p> <p>Moreover, Samsung's</p>	<p>Indefinite</p> <p>Samsung objects to Largan's proposal that the Court construe “□” as a single term. Only five claim construction terms have been allocated to Largan, but Largan here is attempting to have the Court construe five separate terms under the guise of a single entry in this chart. Those five terms are:</p> <ul style="list-style-type: none"> • □L1R1/L1R2□<0.5 • □R3R1/L3R2□> 	

¹ Largan served its Preliminary Election of Asserted Claims on August 29, 2014 after Samsung had completed its work on its claim construction positions. In this Supplemental Joint Claim Construction Worksheet, Samsung has dropped those terms that it now understands not to be at issue on account of Largan's election. Samsung reserves the right to further supplement this list should Largan take any contrary positions as the case progresses.

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				<p>argument that this claim term was not properly disclosed in advance is plainly incorrect. Although Largan initially proposed longer portions of the claim language for construction (whole formulas that included the boxes), both parties shortened claim terms with an aim for narrowing the disputed issues before the Court. For example, less than 24 hours before the original filing, Samsung deleted language from its proposed term “the [second / third] lens element . . . [has /having] . . . at least one inflection point formed on the object-side and image-side surfaces,” which now</p>	<p>0.3</p> <ul style="list-style-type: none"> • $1.5 > \square f/f_1 > 1.0$ • $1.2 > \square f/f_2 > 0.7$ • $1.2 > \square f/f_3 > 0.3$. <p>Each “$\square$” must be analyzed in the context of the term in which it occurs and that term must be independently analyzed by the Court.</p> <p>Largan further failed to identify “\square” as an independent term in either its preliminary proposed constructions (P.L.R. 4.1(a)) or its responsive proposed constructions (P.L.R. 4.1(c)). Instead, Largan waited until two days before this Joint Claim Construction Statement was due to argue for the first</p>	

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				reads: "at least one inflection point formed on the object-side and image-side surfaces." Narrowing claim terms is in the best interest of the parties and the Court. Samsung has no grounds to complain about Largan narrowing its proposals, particularly because it did so itself less than 24 hours before the original filing.	time that "□" should be construed. The patent local rules are designed to prohibit such dilatory tactics, particularly when they violate the Court's limits on the numbers of disputed terms. Nonetheless, in the event that the Court considers these five terms ("□L1R1/L1R2□<0.5"; "□R3R1/L3R2□>0.3"; "1.5>□f/f1□>1.0"; "1.2>□f/f2□>0.7"; "1.2>□f/f3□>0.3"), they are indefinite. Each term, viewed in light of the specification and prosecution history, fails to inform those skilled in the art about the scope of the invention with	

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					<p>reasonable certainty. <i>Nautilus, Inc. v. Biosig Instruments, Inc.</i>, 572 U.S. ___, slip op. at 11 (2014).</p> <p>Further, Plaintiff's proposed construction impermissibly reads different meaning into the claim. Largan's construction is an inappropriate attempt to use this Court to correct the '925 Patent. These terms are not amenable to judicial correction because they do not satisfy the Federal Circuit's requirements for judicial correction. <i>Group One, Ltd. v. Hallmark Cards, Inc.</i>, 407 F.3d 1297,</p>	

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					1303 (Fed. Cir. 2005); <i>Novo Indus., L.P. v. Micro Molds Corp.</i> , 350 F.3d 1348, 1352–53 (Fed. Cir. 2003).	
2	'190	$“-1.5 < f_4/f_5 \leq 0.79”$		$“-1.5 < f_4/f_5 \leq -0.79”$	<p>Plain and ordinary meaning, <i>i.e.</i>, “$-1.5 < f_4/f_5 \leq 0.79$”.</p> <p>Plaintiff's proposed construction impermissibly reads different meaning into the claim. To the extent Largan contends the construction is intended to correct an alleged error in the claims, Largan's construction is an inappropriate attempt to use this Court to correct the '190 Patent. This term is not amenable to judicial correction because it does not</p>	

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					satisfy the Federal Circuit's requirements for judicial correction. <i>Group One</i> , 407 F.3d at 1303; <i>Novo</i> , 350 F.3d at 1352–53.	
3	'807	"at least one inflection point formed on the object-side and image-side surfaces"		These terms are not indefinite and should be given their plain and ordinary meaning, which is "at least one inflection point formed on at least one of the object-side and image-side surfaces."	Indefinite	
4	'602 '807 '860	"plastic"		This term needs no construction and should be given its plain and ordinary meaning.	"synthetic material distinct from glass"	
5	'602 '807 '860 '190 '191	<u>'602 Patent</u> 1. An optical system for taking image comprising three lens elements with refractive power,		Samsung's proposal that the Court construe the preambles of the independent claims as limiting is not properly before the	The preambles of the independent claims in the '602, '807, '860, '190, and '191 Patents are limiting because they recite	

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		<p>from the object side to the image side:</p> <p>a first lens element with positive refractive power having a convex front surface and a concave rear surface, the front surface of the first lens being aspheric;</p> <p>a plastic second lens element with negative refractive power having a concave front surface and a convex rear surface, the front surface and the rear surface of the second lens being aspheric;</p> <p>a plastic third lens element with positive refractive power having a convex front surface and a concave rear surface, the front surface and the rear surface of the third</p>		<p>Court. First, Samsung's proposal vastly exceeds the Court's limit of 10 disputed claim terms because there is no one preamble. Rather, each independent claim in each of the patents-in-suit has a different preamble. Moreover, each preamble consists of multiple different terms, each of which must be analyzed separately for whether or not it is a limitation. Moreover, the fact that Samsung's proposal to construe all of the preambles exceeds the Court's limit on the number of disputed claim terms is particularly true given that Samsung is only permitted to choose</p>	<p>essential structure or steps and/or are necessary to give "life, meaning, and vitality" to the claims. <i>See, e.g., Catalina Mktg., Int'l v. Coolsavings.com</i>, 289 F.3d 801, 808 (Fed. Cir. 2002).</p> <p>Largan has been on notice that Samsung believes the preambles of the independent claims in the '602, '807, '860, '190, and '191 Patents are limiting. On August 1, 2014, Samsung identified "thin type," found in the preambles of claims 7 and 8 of the '747 Patent, as a term requiring construction. Samsung further disclosed Samsung's view that these</p>	

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		<p>lens being aspheric; and</p> <p>an aperture stop located between the first lens element and the second lens element for controlling brightness of the optical system;</p> <p>wherein a focal length of the first lens element is f_1, a focal length of the second lens element is f_2, a focal length of the optical system is f, and they satisfy the relations: $f/f_1 > 0.95$, $f/f_2 > 0.34$.</p> <p><u>'807 Patent</u></p> <p>1. An imaging lens assembly comprising, in order from an object side to an image side:</p> <p>a first lens element</p>		<p>half of the 10 disputed terms.</p> <p>Second, Samsung identified only one specific preamble (of a patent claim that is no longer asserted) in its preliminary proposed constructions (Patent L.R. 4.1.a) and its responsive proposed constructions (Patent L.R. 4.1.c). Samsung waited until the day this Joint Claim Construction Statement was due to argue for the first time that all preambles should be construed. The patent local rules are designed to prohibit such dilatory tactics, particularly when they violate the Court's limits on the numbers of disputed</p>	<p>preambles are limiting to Largan during a meet-and-confer on August 25, 2014. Samsung again confirmed Samsung's view that the preambles are limiting during a follow-up meet-and-confer on August 27, 2014.</p> <p>Pursuant to P.L.R. 4.2(b), Samsung states that the construction of this claim term may impact its non-infringement or invalidity arguments. However, Largan has not served proper infringement contentions or any substantive response to Samsung's discovery request seeking its validity</p>	

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		<p>with positive refractive power having a convex object-side surface and a convex image-side surface;</p> <p>a second lens element with negative refractive power, at least one of the object-side and image-side surfaces thereof being aspheric; and</p> <p>a third lens element with negative refractive power having a concave image-side surface, both of the object-side and image-side surfaces thereof being aspheric; and wherein the imaging lens assembly further comprises an aperture stop disposed between the first lens element and the</p>		<p>terms.</p> <p>In the event the Court considers Samsung's proposal as a single "term," Largan states that the preambles are not limiting. However, for the reasons discussed above, these are neither one term nor should Samsung be permitted to introduce this argument on the day of filing.</p> <p>Pursuant to P.L.R. 4.2(b), Largan states that it is not presently aware of any non-infringement or invalidity argument that hinges upon the construction of this term, making Samsung's last-minute insistence on construing these terms even more odd.</p>	<p>positions.</p>	

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		second lens element, and an electronic sensor for image formation; wherein there are three lens elements with refractive power; and wherein a focal length of the imaging lens assembly is f , a focal length of the second lens element is f_2 , a radius of curvature of the object-side surface of the first lens element is R_1 , a radius of curvature of the image-side surface of the first lens element is R_2 , a radius of curvature of the object-side surface of the second lens element is R_3 , a distance on the optical axis between the aperture stop and the electronic sensor is SL , a distance on		However, Samsung has not yet provided any substantive response to Largan's discovery requests seeking its non-infringement positions.		

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		<p>the optical axis between the object-side surface of the first lens element and the electronic sensor is TTL, and they satisfy the following relations:</p> <p>$-0.70 < f/f_2 < -0.24;$</p> <p>$-0.30 < R_1/R_2 < 0.00;$</p> <p>$-0.40 < R_3/f < -0.24;$</p> <p>$0.75 < SL/TTL < 0.90.$</p> <p>20. An imaging lens assembly comprising, in order from an object side to an image side:</p> <p>a first lens element with positive refractive power having a convex object-side surface and a convex image-side surface;</p>				

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		<p>a second lens element with negative refractive power having a concave object-side surface and a convex image-side surface, at least one of the object-side and the image-side surfaces thereof being aspheric; and</p> <p>a third lens element with negative refractive power having a concave image-side surface, both of the object-side and image-side surfaces thereof being aspheric, at least one inflection point formed on the object-side and image-side surfaces; and wherein the imaging lens assembly further comprises an aperture stop disposed between the first lens</p>				

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		element and the second lens element, and an electronic sensor for image formation; wherein there are three lens elements with refractive power; and wherein a focal length of the imaging lens assembly is f , a focal length of the second lens element is f_2 , a radius of curvature of the object-side surface of the first lens element is R_1 , a radius of curvature of the image-side surface of the first lens element is R_2 , an Abbe number of the first lens element is V_1 , an Abbe number of the second lens element is V_2 , a distance on the optical axis between the aperture stop and				

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		<p>the electronic sensor is SL, a distance on the optical axis between the object-side surface of the first lens element and the electronic sensor is TTL, and they satisfy the following relations:</p> <p>$-0.70 < f/f_2 < -0.24;$</p> <p>$-0.30 < R_1/R_2 < 0.00;$</p> <p>$31.0 < V_1 - V_2 < 45.0;$</p> <p>$0.75 < SL/TTL < 0.90.$</p> <p><u>'860 Patent</u></p> <p>1. An optical lens system comprising, in order from an object side to an image side:</p> <p>a first lens element with positive refractive power having a convex</p>				

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		object-side surface; a second lens element with negative refractive power; a third lens element with positive refractive power having a convex object-side surface and a convex image-side surface; a fourth lens element; and a fifth lens element having a convex object-side surface and a concave image-side surface, the object-side and image-side surfaces thereof being aspheric and at least one inflection point being formed on the image-side surface, wherein the optical				

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		<p>lens system is further provided with a stop disposed between an object and the third lens element, and an electronic sensor disposed at an image plane for the image formation of the object; a focal length of the optical lens system is f; a focal length of the third lens element is f3; a distance on an optical axis between the stop and the electronic sensor is SL; a distance on the optical axis between the object-side surface of the first lens element and the electronic sensor is TTL; and they satisfy the following relations:</p> <p>$0.00 < f/f3 < 1.90$, and</p> <p>$0.7 < SL/TTL < 1.2$.</p>				

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		<p><u>'190 Patent</u></p> <p>1. An imaging lens system including, in order from an object side to an image side:</p> <p>a first lens element with positive refractive power having a convex object-side surface;</p> <p>a second lens element with negative refractive power;</p> <p>a third lens element;</p> <p>a fourth lens element with positive refractive power having a convex image-side surface; and</p> <p>a fifth lens element with negative refractive power</p>				

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		<p>having a convex object-side surface and a concave image-side surface, the object-side and image-side surfaces thereof being aspheric, at least one surface thereof being provided with at least one inflection point;</p> <p>wherein the lens elements with refractive power in the imaging lens system are only the first, second, third, fourth and fifth lens elements; a focal length of the fourth lens element is f4, a focal length of the fifth lens element is f5, and they satisfy the relation: $-1.5 < f4/f5 < -0.5$.</p> <p>21. An imaging lens system including, in</p>				

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		<p>order from an object side to an image side:</p> <p>a first lens element with positive refractive power having a convex object-side surface;</p> <p>a second lens element;</p> <p>a third lens element;</p> <p>a fourth lens element with positive refractive power having a convex image-side surface; and</p> <p>a fifth lens element with negative refractive power having a convex object-side surface and a concave image-side surface, the object-side and image-side surfaces</p>				

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		<p>thereof being aspheric, at least one surface thereof being provided with at least one inflection point;</p> <p>wherein the lens elements with refractive power in the imaging lens system are only the first, second, third, fourth and fifth lens elements; a focal length of the fourth lens element is f4, a focal length of the fifth lens element is f5, and they satisfy the relation: $-1.5 < f4/f5 \leq 0.79.$</p> <p><u>'191 Patent</u></p> <p>1. An imaging lens system including, in order from an object side to an image side:</p> <p>a first lens element</p>				

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		<p>with positive refractive power having a convex object-side surface;</p> <p>a second lens element with negative refractive power having a convex object-side surface and a concave image-side surface;</p> <p>a third lens element;</p> <p>a fourth lens element having a concave object-side surface and a convex image-side surface; and</p> <p>a fifth lens element with negative refractive power having an object-side surface and a concave image-side surface, the object-side and image-side surfaces thereof being aspheric, at least one</p>				

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		<p>surface thereof being provided with at least one inflection point;</p> <p>wherein the lens elements with refractive power in the imaging lens system are only the first, second, third, fourth and fifth lens elements; an Abbe number of the first lens element is V1, an Abbe number of the second lens element is V2, and the following relation is satisfied: $V_1 - V_2 > 20$.</p> <p>12. An imaging lens system including, in order from an object side to an image side:</p> <p>a first lens element with positive refractive power having a convex</p>				

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		object-side surface; a second lens element with negative refractive power having a convex object-side surface and a concave image-side surface; a third lens element; a fourth lens element having a concave object-side surface and a convex image-side surface; and a fifth lens element having an object-side surface and a concave image-side surface, the object-side and image-side surfaces thereof being aspheric, at least one surface thereof being provided with at least one inflection point; wherein the lens				

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		<p>elements with refractive power in the imaging lens system are only the first, second, third, fourth and fifth lens elements.</p> <p>22. An imaging lens system including, in order from an object side to an image side:</p> <p>a first lens element with positive refractive power having a convex object-side surface;</p> <p>a second lens element with negative refractive power having a convex object-side surface and a concave image-side surface;</p> <p>a third lens element;</p> <p>a fourth lens element</p>				

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		<p>having a convex image-side surface; and</p> <p>a fifth lens element having an object-side surface and a concave image-side surface, the object-side and image-side surfaces thereof being aspheric, at least one surface thereof being provided with at least one inflection point;</p> <p>wherein the lens elements with refractive power in the imaging lens system are only the first, second, third, fourth and fifth lens elements; a focal length of the fourth lens element is f4, a focal length of the fifth lens element is f5, and the following relation is satisfied:</p> $-1.5 < f4/f5 < -0.5.$				

#	PATENT	TERM	AGREED PROPOSED CONSTRUCTION	PLAINTIFF'S PROPOSED CONSTRUCTION	DEFENDANT'S PROPOSED CONSTRUCTION	COURT'S CONSTRUCTION
6	'925	"front concave surface"	"concave object-side surface at the optical axis"			
7	'925	"front convex surface"	"convex object-side surface at the optical axis"			
8	'925	"back concave surface"	"concave image-side surface at the optical axis"			
9	'925	"back convex surface"	"convex image-side surface at the optical axis"			
10	'602	"concave front surface"	"concave object-side surface at the optical axis"			
11	'602	"convex front surface"	"convex object-side surface at the optical axis"			
12	'602	"concave rear surface"	"concave image-side surface at the optical axis"			
13	'602	"convex rear surface"	"convex image-side surface at the optical axis"			
14	'807 '860 '190 '191	"concave object-side surface"	"concave object-side surface at the optical axis"			
15	'807 '860	"convex object-side surface"	"convex object-side surface at the optical			

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	'190 '191		axis”			
16	'807 '860 '190 '191	“concave image-side surface”	“concave image-side surface at the optical axis”			
17	'807 '860 '190 '191	“convex image-side surface”	“convex image-side surface at the optical axis”			
18	'925	“is [also] provided with aspherical surface”	“has at least one surface that is aspheric within the effective optical diameter”			
19	'602	“surface . . . [is/being] aspheric”	“surface . . . [is/being] aspheric within the effective optical diameter”			
20	'807	“surfaces thereof being aspheric”	“surfaces thereof being aspheric within the effective optical diameter”			
21	'860	“surfaces . . . [is/being] aspheric”	“surfaces . . . [is/being] aspheric within the effective optical diameter”			
22	'190 '191	“surfaces thereof being aspheric”	“surfaces thereof being aspheric within the effective optical diameter”			

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23	'602	"formed with at least one inflection point"	"having at least one inflection point within the effective optical diameter"			
24	'807	"at least one inflection point formed"	"at least one inflection point within the effective optical diameter"			
25	'860	"at least one inflection point being formed"	"having at least one inflection point within the effective optical diameter"			
26	'190 '191	"provided with at least one inflection point"	"having at least one inflection point within the effective optical diameter"			
27	'602	"edge thickness"	"the length projected on the optical axis by the distance between the positions of the effective diameter of the front and the rear surfaces of the lens"			
28	'602	"a center thickness of the second lens element is CT2"	"CT2 is a thickness of the second lens element on the optical axis"			
29	'925	"R3R1"	"L3R1"			